

Repro by

1

AD-A257 775



S **DTIC**
A **ELECTE**
D **NOV 06 1992**

APJ

STRUCTURED ANALYSIS
ILS ASSESSMENT E12
STANDARDIZATION & INTEROPERABILITY
E12

APJ 966-205



AMERICAN POWER JET CO. RIDGEFIELD N.J.

This document has been approved
for public release and sale; its
distribution is unlimited.

92 11 03 03

92-28782



6288

APJ 966-205

STRUCTURED ANALYSIS
ILS ASSESSMENT
STANDARDIZATION & INTEROPERABILITY

under

CONTRACT DAAA21-86-D-0025

DTIC QUALITY INSPECTED 4

for

HQ US AMCCOM
INTEGRATED LOGISTIC SUPPORT OFFICE
AMSMC-LSP
ROCK ISLAND, IL

by

AMERICAN POWER JET COMPANY
RIDGEFIELD, NJ
FT. EUSTIS, VA
FALLS CHURCH, VA
ST. LOUIS, MO

November 1988

Accession For	
NTIS CRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

FOREWORD

APJ, under contract to HQs, AMCCOM, has initiated the automation of the LSA Tasks (MIL-STD-1388-1) and the assessment of the ILS elements (AR 700-127). The major goal of this program is to unify the approach to performance of ILS and LSA by military and contract logisticians.

Detailed to meet all requirements of the LSA and ILS, the automated process will continue to provide the flexibility of selecting tasks/elements to be addressed at each life cycle stage. A major advantage is that the application of a task element is consistent with prescribed Army policies and procedures.

This report is one of a series presenting the Structured Analysis of each LSA Task and ILS Element. Structured Analysis comprises a description of the process being automated in terms which facilitate system design and subsequent programming. It is increasingly the preferred approach in both industry and Government.

This Technical Note reports on the Data Flow Diagrams (DFD) of the assessment of the ILS Element, "Standardization and Interoperability (S&I)", and provides definitions of the processes, data flows, data stores, and external entities involved on each DFD. The report provides an overview of the assessment procedures and a guide to the overall assessment.

To view this work in context, this report also presents a brief overview of Structured Analysis and its place in the overall systems design process to assist the reader who may not be fully briefed on the symbols and conventions used. This overview of Structured Analysis is repeated verbatim in every report in this series to allow each report to stand alone.

The numerical identification assigned corresponds to the task/subtask/element identified in MIL-STD-1388-1 or AR 700-127 in effect as of the APJ contract start date (October 1986). Both publications are currently being updated, which may alter the numbering of the respective elements. The latest updated guides will, however, be used in the Structured Analysis Program. Comments are welcomed.

* As identified in AR 700-27, "Integrated Logistic Support", Appendix E, effective 15 June 1983 (E-12 retains the same identity in the 16 January 1987 edition of AR 700-127).

TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>
Background.....	1
Purpose.....	1
Scope.....	2
ILS Standardization/Interoperability (S&I) Assessment Description.....	2
Overview of Standardization & Inter- operability (E12) Data Flow Diagrams.....	3
Approach.....	4
Structured Analysis and Design.....	6
Standardization and Interoperability (S&I) Data Flow Diagrams.....	7
APPENDIX A: Standardization and Interoperability (S&I) Data Flow Diagrams and Process Data Dictionaries.....	A-1
GLOSSARY - DATA FLOW DIAGRAMS.....	DG-1
- TEXT.....	TG-1

LIST OF ILLUSTRATIONS

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Structured Analysis and Structured Systems Design Organization.....	8
2	Standard DFD Symbol Definitions..	10

TASKS:

E12	Standardization/Interoperability Overview
E12.1A	Interfaces with other Army, Service and Ally Equipment
E12.2A	Parts, Processes & Supply Standardization
E12.3A	Standardization & Interoperability Implementation Plans & Resources Availability
E12.4A	Standardization & Interoperability Plans and Resources Execution

**STRUCTURED ANALYSIS - ILS ASSESSMENT
STANDARDIZATION AND INTEROPERABILITY (S&I)**

BACKGROUND

The Department of the Army has a requirement for management control over contractor and Government Agency response to the requirements of AR 700-127, "Integrated Logistic Support", and MIL-STD-1388-1, "Logistic Support Analysis". HQs AMCCOM has initiated action to structure the tasks, the form of the results, and the detailed processes to insure consistency with current Army policies, procedures, and techniques.

This approach (undertaken by AMCCOM and APJ) will insure uniformity in efforts and products, reproducibility of analyses, and a well-defined structure which can be coordinated among all participants in the logistic process to arrive at common understanding and procedures.

PURPOSE

The purpose of this report series is to present the results of the APJ efforts under Contract DAAA21-86-D-0025 for coordination with the AMCCOM Program Manager prior to in-depth structured design of ILS/LSA functions/processes. This report addresses ILS assessment of Standardization and Interoperability (S&I).

SCOPE

ILS assessment of S&I concerns the review and assessment of the plans, programs, and actions taken to insure optimization of the standardization potential, and to maximize the interoperability of the development item/equipment.

This report summarizes the major efforts and results of the structured analysis of this ILS assessment area and presents the associated Data Flow Diagrams (DFDs) developed from the Structured Analysis. The sections of the Data Dictionary relating to the label, name, process, data flow, data store, and external entity descriptions are included in their present degree of completeness. (The Data Dictionary is a "living document" that evolves through the analysis/design process).

To place this work in context, this report also presents a brief overview of structured analysis and its place in the overall systems design process to assist the reader who may not be fully briefed on the symbols and conventions used.

ILS S&I ASSESSMENT DESCRIPTION

Four (4) major elements are associated with S&I, in accordance with the requirements of AR 700-127, "Integrated Logistic Support":

1. System Family Approach
2. Interoperable Systems
3. Proven (off-the-shelf) Components and Subsystems
4. Other Service, NATO Ally Interface

Development of S&I assessment processes requires consideration of the specific areas of concern within the context of the life cycle phase in the acquisition process. There is a parallel requirement that the review/assessment team have an awareness of current Army policies and procedures related to these areas, as well as possible agreements or potential arrangements which have been or could be made with other Services or potential host countries which may assist the Army in the support of developmental item/equipment.

The outputs of this ILS assessment will be the identification of those areas of the Army support systems, acquisition processes/plans, and inter-Service opportunities, which provide potential economic savings attainable through standardization of parts, processes and policies and interoperability with other major systems and equipment. Particular reference should be made to the areas requiring further consideration, changes in plans, and the preparation of a corresponding set of recommendations for corrective actions to complete/correct/update S&I documentation.

OVERVIEW OF STANDARDIZATION AND INTEROPERABILITY (E12)
DATA FLOW DIAGRAMS (DFDs):

S&I is assessed from two points of view: The first looks primarily at issues or concerns of Rationalization, Standardization, Interoperability (RSI) which are S&I issues mutually affecting our allies and the U.S. Army. The second looks into S&I issues of concern within the Army and other DOD activities with no particular reference to our allies.

At the top level DFD:

El2.1 reviews requirements documents to identify stated, implied and potential RSI interfaces.

El2.2 examines internal S&I interfaces within DOD activities, not only at equipment interfaces but at S&I activities which occur at the subassembly and component level.

El2.3 considers both the RSI and internal S&I planning and resource issues.

El2.4 considers both the RSI and internal S&I execution of the planned efforts.

El2.5 sorts the subassessments or comments made during the prior processes to assist the reviewer in the overall assessment of the S&I element and to identify those actions which were satisfactory, marginal, conditional, or unsatisfactory and present recommendations.

APPROACH

The APJ approach to the Structured Design of the ILS assessments is:

1. Scope the processes required to meet the intent of MIL-STD 1388-1 and AR 700-127, as well as the guidance provided by DA PAM 700-28, "Integrated Logistic Support Program Assessment Issues and Criteria", DA PAM 700-55, "Instructions for Preparing the Integrated Logistic Support Plan", and AMC R 700-5, "Logistics - Integrated Logistic Support" (with its AMCCOM Supplement).

2. Review the applicable Data Item Descriptions (DIDs) from the Acquisition Management systems and Data Requirements Control List (AMSDL) published by the Department of Defense.

3. Review all source documents referenced in the AMSDL as applicable to the referenced DIDs of interest.

4. Apply staff experience in logistics support analysis to assure that the intent of the task has been addressed.

5. Validate results in discussions with Army activities/personnel directly involved in the applicable or related LSA tasks.

The Structured Analysis and preparation of Data Flow Diagrams (DFDs) was further assisted by the application of Structured Analysis software. Licensed by Index Technology Corporation, Excelerator provides for automated tracking of names, labels, descriptions, multiple levels of detail in the data flow diagrams, and industry standards in symbols and diagramming practices.

Following completion of the draft DFDs, the diagrams are made available to working Army logisticians currently (or recently) directly involved in the application of the same LSA tasks in current Army development programs. Comments are solicited relative to the logic of the processes described, the scope and details of the indicated approaches, and the outputs implied by the LSA task requirements.

The draft products to date were well received by the external reviewers, and requests have been received for copies of the DFDs for in-house use in organizing ILS/LSA efforts. Comment was also made that the DFDs will be a useful training tool for apprentice logisticians, since they provide an overall picture of the total task and a uniform approach to its fulfillment.

STRUCTURED ANALYSIS AND DESIGN

Structured Analysis and Structured Systems Design evolved from the need to define and demonstrate the underlying logical functions and requirements of large systems. The concept of Structured Analysis involves building a logical (non-physical) model of a system, using graphic techniques which enable users, analysts, and designers to get a clear and common picture of the system and how its parts fit together to meet the user's needs. It is followed by structured design, and then by programming and test/validation.

The Structured Analysis/Structured Systems Design process, sometimes referred to as "Structured Design", is well documented and widely utilized in Government and industry. As stated in "The Practical Guide to Structured Systems Design" (Meilir Page-Jones, Prentice-Hall, Englewood Cliffs, NJ, 1980),

..."Structured Design is disciplined approach to computer system design, an activity that in the past has been notoriously haphazard and fraught with problems. Structured Design is a response to the failings of the past. It has five aspects:

"1. Structured Design allows the form of the problem to guide the form of the solution.

"2. Structured Design seeks to conquer the complexity of large systems by means of partitioning the system into "black boxes," and by organizing the black boxes into hierarchies suitable for computer implementation.

"3. Structured Design uses tools, especially graphic ones, to render systems readily understandable.

"4. Structured Design offers a set of strategies for developing a design solution from a well defined statement of a problem.

"5. Structured Design offers a set of criteria for evaluating the quality of a given design solution with respect to the problem to be solved.

"Structured Design produces systems that are easy to understand, reliable, flexible, long lasting, smoothly developed, and efficient to operate - and that WORK...."

The organization of Structured Analysis and its relationship to Structured System Design is shown on Figure 1.

STANDARDIZATION AND INTEROPERABILITY (S&I) DATA FLOW DIAGRAMS

The Data Flow Diagram is a tool that shows flow of data, i.e., data flows from sources and is processed by activities to produce intermediate or final products.

The DFD provides a useful and meaningful partitioning of a system from the viewpoint of identification and separation of all functions, actions, or processes so that each can be introduced, changed, added, or deleted with minimal disruption of the overall program, i.e., it emphasizes the underlying concept of modularity and identifiable transformations of data into actionable products.

A series of five (5) DFDs have been developed to structure this task:

1. El2 - Standardization/Interoperability Overview
2. El2.1A - Interfaces with other Army, Service and Ally Equipment
3. El2.2A - Parts, Processes & Supply Standardization

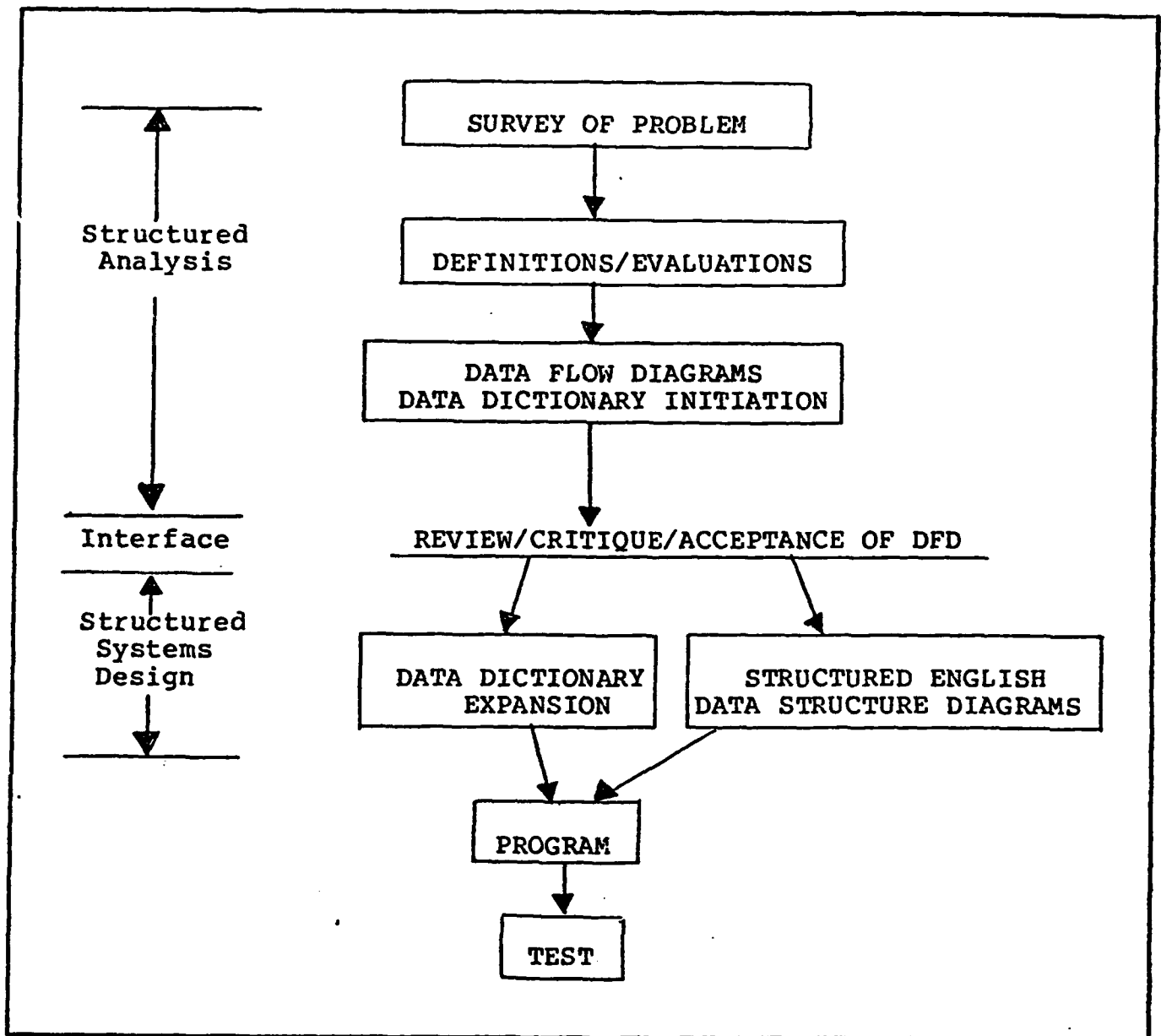


Figure 1. Structured Analysis and Structured Systems Design Organization

4. El2.3A - Standardization & Interoperability Implementation Plans & Resources Availability
5. El2.4A - Standardization & Interoperability Plans and Resources Execution

Each DFD is keyed to the specific element (ILS, in this case) process through the identification number assigned in the lower right hand box. The alpha codes indicate the level of indenture or explosion below the top level, i.e.:

Top Level.....ILS DFD El2
First Indenture.....ILS DFD El2.1A

Each DFD makes reference to the basic ILS assessment area addressed, as well as the level of indenture (explosion) of the DFD. For example, the first or top level DFD is "El2", referring to the ILS assessment element E-12, "Standardization and Interoperability", listed in Appendix E, AR 700,127, effective 15 June 1983 (the edition in effect at the start of the study). Processes (bubbles) at the top level DFD (e.g., El2.4 - Standardization and Interoperability Plans and Resources Execution Assessment) may be expanded (exploded). For example, a second level of El2.4 is identified as El2.4A (an alpha B would designate a third level.)

Four standard symbols are used in the drawings of a DFD (see Figure 2).

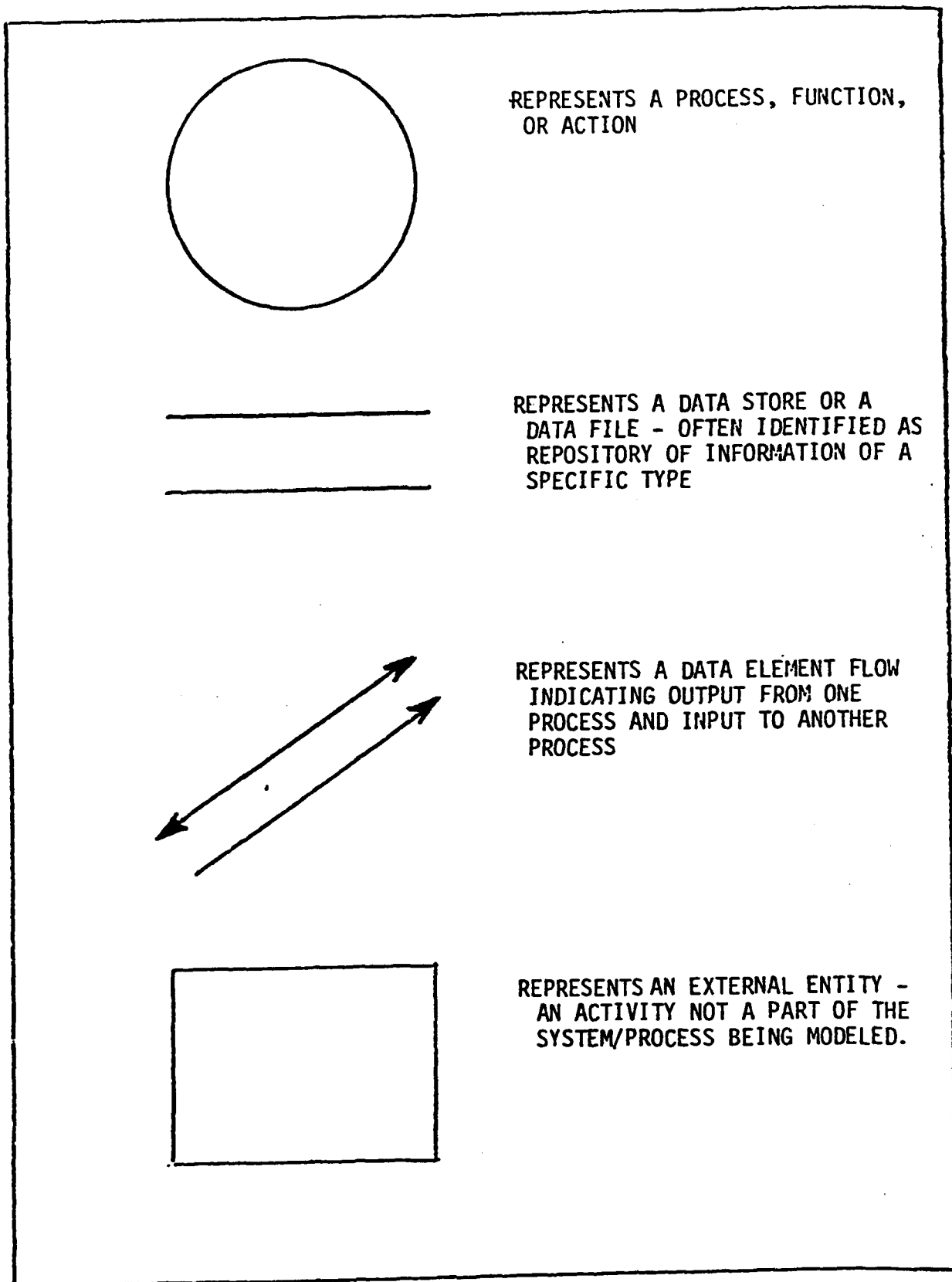


Figure 2. STANDARD DFD SYMBOL DEFINITIONS

A copy of each of the DFDs is presented in Annex A, accompanied by the Data Dictionary process elements. Each entry in the DFDs has a corresponding entry in the Data Dictionary. This Technical Note presents those Data Dictionary entries necessary for the coordination of the overall concept and details of the DFDs. Thus, definitions for the processes, data flows, data stores, and external entities immediately follow each DFD.

As the DFDs progress through Structured System Design, the Data Dictionary will continue to be expanded and completed. Since these are working documents and not final submissions, no effort has been devoted to editorial niceties, e.g., spelling, typography, etc.

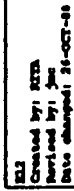
It is noted that the output structure of Excelerator automatically truncates the number of letters and lines displayed as a function of image size. Thus, in the format size of this report, the full identifying entry is forcibly shortened, introducing the possibility of a misunderstanding. Therefore, in all cases, the identifications are fully presented for the process elements in the text accompanying the diagrams.

APPENDIX A

STANDARDIZATION AND INTEROPERABILITY (S&I)
DATA FLOW DIAGRAMS AND
PROCESS DATA DICTIONARIES

E12

STANDARDIZATION/INTEROPERABILITY OVERVIEW



DATE: 26-OCT-88
TIME: 15:19

APJ PROJECT 966
DFD E12 PROCESS DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
E12.1	RVW RQNTS DOC.INTER- AND ALLY EQUIPMENT FACES FOR RSI WITH ALLY EQUIP	<p>ACRONYMS: ROC - Required Operational Capability JSOR - Joint Services Operational Requirements O&O - Operational and Organizational MSP - Mission Support Plan RSI - Rationalization, Standardization, and Interoperability</p> <p>PURPOSE OF DATA PROCESS : In this process a review of the requirements documents is done to identify explicit and implicit Rationalization, Standardization, Interoperability (RSI) interfaces; standing agreements are also reviewed for applicability. Design caused RSI interfaces are also reviewed (i.e., an interface not called for in any document explicitly, but something in the design may mandate an RSI interface per prior agreements). RSI is defined in detail in Paragraph 1.5, AR 34-1.</p> <p>SOURCE OF DATA: Requirements documents such as ROC's, JSOR's, O&O's, Specifications, Mission Support Plans (MSP's), Multinational Development Agreements, Standing Standardization Agreements</p>
E12.2	RVW DESIGN REVIEW DESIGN INTERFACES PARTS, PROCESSES, SUPPLY STANDARDIZATION AND INTERFACES OTHER SERVICES INTERFACES PARTS/PROC ESS/SUPPLY	<p>PURPOSE OF DATA PROCESS : This process identifies explicit STANDRDETN references to S&I requirements with other Army and, other services items of hardware which may or may not also be compatible with allied equipment or hardware. This process also identifies interface standardization that occurs normally at or below the subsystem level and which may or may not have RSI implications. It checks for standardization or commonality of internal hardware and processes as addressed in AR's on parts standardization, MIL-STD's etc. The goal is to check for the application of any nonstandard parts or processes which may have logistical implications at a latter time.</p> <p>SOURCE OF DATA : The requirements documents ROC's, JSOR's, O&O's; AR 700-47, AR 700-50, AR 700-60, MIL-STD's dealing with uniformity of standards or procedures to be used on acquisition projects.</p>
E12.3	REVIEW PLANS & RESOURCES TO IMPLMENT S&I	<p>REVIEW PLANS AND RESOURCES TO IMPLEMENT STANDARDIZATION & INTEROPERABILITY</p> <p>PURPOSE OF DATA : This process identifies the support organizations and the associated personnel, and financial resources available for the S&I tasks/efforts.</p> <p>SOURCE OF DATA : The identified S&I tasks, funding data, personnel, equipment, facilities resources either RSI or internal to DOD activities.</p>

DATE: 26-OCT-88
TIME: 15:19

APJ PROJECT 966
DFD E12 PROCESS DEFINITIONS

PAGE 2
EXCELERATOR 1.8

Name	Label	Description
E12.4	ASSESS S&I PLANS & RESOURCES EXECUTION	<p>PURPOSE OF DATA PROCESS : This process assesses whether the identified plans and resources identified in E12.3 were executed and utilized as planned. An assessment as to whether the S&I effort should be modified can also be made here.</p> <p>SOURCE OF DATA : Program/design review information, test and LSAR info, contractual deliverables as appropriate.</p>
E12.5	ASSESS OVERALL S&I STATUS	<p>PURPOSE OF DATA PROCESS : This process consolidates all S&I subassessments and generates an overall assessment for S&I issues.</p> <p>SOURCE OF DATA : S&I assessment file where all subassessments are stored.</p>

DATE: 26-OCT-88
TIME: 15:24

APJ PROJECT 966
DFD E12 DATA FLOW DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
DES/INT	DESIGN CAUSED INTERFACES	DESIGN CAUSED INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : This information is aggregated from the design file to show what interfaces with S&I implications need to be considered which where neither stated nor initially implied, but because of design accomodations must now be considered for its S&I impacts. SOURCE OF DATA : Design reviews or design working group notes.
FUND/RSI/STDM	FUND AVAIL FOR RSI & STANDARDIZITN	FUNDS AVAILABLE FOR RSI AND STANDARDIZATION EFFORTS ACRONYMS: RSI - Rationalization, Standardization & Interoperability S&I - Standardization & Interoperability O&S - Operations and Support PM - Program Manager FIELD INFORMATION, TYPE, STYLE : Narrative and numerical comments PURPOSE OF DATA : This data will be used by the reviewer to help assess the adequacy of funding resources made available in the contract for the implementation of RSI and standardization efforts. It can also be used to identify if the various participants are carrying their "fair" share of the burden caused by the S&I effort, especially if it adds significant costs to the development or O&S costs. SOURCE OF DATA : Funding profiles available from the PM or his budget representatives.
INIT/ACT	INITIATE ACTION	
LSA/REP	LSA REPORTS	LOGISTICS SUPPORT ANALYSIS (LSA) REPORTS OR RELATED DOCUMENTS FIELD INFORMATION,TYPE,STYLE : Narrative and numerical comments/extracts from LSAR numbered reports or LSA task performance reports PURPOSE OF DATA : This data is used as input information on which to perform various processes. SOURCE OF DATA : LSAR, LSA task reports not documented in LSAR. Specific report numbers under the LSAR must be selected by subject as required for the specific process. MIL-STD 1388-2A lists the various automated reports and the master data record sheets A-J available. Not all LSA task outputs are recorded on the LSAR; the LSA plan (TASK 201) for the particular system needs to be reviewed to see what tasks where to be done. Once LSA tasks are identified you may need to go to MIL-STD 1388-1A or contract for a review of what is required under the various tasks;this may provide an idea if results will also /not be found in hte LSAR.

DATE: 26-OCT-88
TIME: 15:24

APJ PROJECT 966
DFD E12 DATA FLOW DEFINITIONS

PAGE 2
EXCELERATOR 1.8

Name	Label	Description
LST/DES/INT	LIST DESIGN STANDARDIZATION INTERFACES	FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : This data contains a listing of components,processes where design standardization efforts are taking/will/could take place based on engineering studies. SOURCE OF DATA : Information comes from design data derived from drawings, analyses, etc.
LST/PRT/PRO/WITH/ASS	LIST OF APPLICABLE EQUIPMENT, PARTS, PROCESSES/PROCEDURES ICABLE EQUIP STANDARDIZATION WITH ASSESSMENTS PARTS/PROCES (FOR NON-RSI DIRECTLY RELATED ITEMS) STANDRDIZTN WITH ASSMTS	FIELD INFORMATION,TYPE,STYLE : Narrative comments and lists with assessment comments. PURPOSE OF DATA : This output data reflects the evaluation of the reviewer as to what parts and processes are undergoing standardization efforts, as well as an assessment as to what greater extent it should be considered. RSI items may also form part of this list if the parts/processes are also common to allies; however, the intent is to check for standardization and interoperability within DOD systems. SOURCE OF DATA : The E12.2A3 process wherein lists are consolidated and assessed.
LST/STA/TME/POT/INT	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES	FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : Data is aggregated to show listing of all actual and potential interfaces having either RSI for E12.1 series processes or internal Army and DOD S&I interfaces. SOURCE OF DATA : All E12.1A series subprocesses or E12.2 series subprocesses
NONFND/RSI/STDN/RES	NONFUND RESOURCES FOR RSI & STANDARDIZTN	NONFUND RSI AND STANDARDIZATION RESOURCES FIELD INFORMATION,TYPE, STYLE : Narrative and numerical comments or document extracts. PURPOSE OF DATA : This data is used to evaluate any non-monetary resources available to the project such as facilities, personnel equipment that will assist in executing the standardization effort. SOURCE OF DATA : MOU's, agreement documents with allies or other services identifying resource responsibilities to the project.
REV/DTA	REVIEW DATA	REVIEW DATA FIELD INFORMATION, TYPE, STYLE : Narrative comments or extracts from review documents. PURPOSE OF DATA : Provides inputs so that RSI plan and resource execution can be evaluated . SOURCE OF DATA : Review documents found in the Review File .

DATE: 26-OCT-88
TIME: 15:24

APJ PROJECT 966
DFD E12 DATA FLOW DEFINITIONS

PAGE 3
EXCELERATOR 1.8

Name	Label	Description
RSI/EXEC	RSI P&R EXEC TN ASSESSMT /RECOMMENCTN	RSI PLANS AND RESOURCES EXECUTION ASSESSMENT AND RECOMMENDATIONS FIELD INFORMATION,TYPE,STYLE : Narrative comments PURPOSE OF DATA : This data records the reviewers assessment as to how well plans and resources in support of the RSI effort have been executed. SOURCE OF DATA : This is an output from process E12.4A1
RSI/SUB/ASS	RSI PLANS & RESOURCES SUB ASSESSMT	RSI PLANS AND RESOURCES (ALLOCATION) SUBASSESSMENT FIELD INFORMATION,TYPE, STYLE: Narrative comments. PURPOSE OF DATA : This output data provides the reviewer's assessment as to how adequate are the financial and non-financial resources to accomplish the RSI effort. SOURCE OF INFORMATION : Output information from E12.3A1
S & I/POL/ DIRECTIVE	S & I POLICY DIRECTIVES	S&I POLICY DIRECTIVES FIELD INFORMATION,TYPE, STYLE : Narrative comments PURPOSE OF DATA : This information contains the Standardization and Interoperability policy and directives information which must be complied with when evaluating S&I. SOURCE OF DATA: AR 34 series, AR 71-9, 700-47, 700-50, 700-60, 700-72, 700-101, 700-115, 703-1, 750-43, AMC-R 700-83, DODD 3405.1, DS PAM 310-35, MIL-STD 633, 680, 838, 965, and MIL HANDBOOK 113 apply to standardization concerns.
S&I/OVRAL/ASS	S&I OVERALL ASSESSMENTS	STANDARDIZATION AND INTEROPERABILITY OVERALL ASSESSMENTS FIELD INFORMATION,TYPE,STYLE : Narrative comments PURPOSE OF DATA : This is the final output data from all the S&I subprocesses in E12.*. This data is a rollup of all subassessments in this subject area. SOURCE OF DATA : S&I assessment file as data as modified in process E12.5
S&I/OVRAL/ASS/WITH/A	S&I ASSESSMT & ACTION ITEMS	STANDARDIZATION & INTEROPERABILITY OVERALL ASSESSMENTS WITH ACTION ITEMS FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : This is the final output data from the E12.* process it is the same as S&I/OVRAL/ASS but it also includes action items for the directing authority for him/they to take action upon. SOURCE OF DATA : S&I file as modified in process E12.5 .

DATE: 26-OCT-88
TIME: 15:25

APJ PROJECT 966
DFD E12 DATA FLOW DEFINITIONS

PAGE 4
EXCELERATOR 1.8

Name	Label	Description
S&I/POL/DIRECTIVES/S	S & I POLICY DIRECTIVES & STDN PLAN DATA	STANDARDIZATION AND INTEROPERABILITY POLICY DIRECTIVES AND STANDARDIZATION PLAN DATA FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : Provides information concerning S&I policies and data from the System Standardization Plan if one exists already. SOURCE OF INFORMATION : The System Standardization Plan, policies from AR's 700-47, and 700-67
S&I/SUB/ASS	S&I PLANS & RESOURCES SUB ASSESMNT	STANDARDIZATION AND INTEROPERABILITY PLANS AND RESOURCES SUBASSESSMENT (FOR NON-RSI EXCLUSIVE ITEMS) FOR THE PROJECT FIELD INFORMATION,TYPE,STYLE : Narrative comments PURPOSE OF DATA : This data contains the output information which identifies the adequacy of financial and non-financial resources to accomplish this aspect of the standardization effort. SOURCE OF DATA : This is output data from E12.3A2 .
STAT/REQ	STATED REQMNTS	STATED REQUIREMENTS FIELD INFORMATION, TYPE STYLE : Narrative comments or extracts from requirements documents. PURPOSE OF DATA : This data identifies the explicitly stated Standardization & Interoperability requirements the system must meet for either RSI or internal DOD use (at the end item or below levels). SOURCE OF DATA : Requirements documents .
STDN/EXEC	STDN PLN&RES EXECUTION ASSESSMNT/ RECOMMENDATN	STANDARDIZATION PLANS & RESOURCES EXECUTION ASSESSMENT/RECOMMENDATIONS FIELD INFORMATION,TYPE, STYLE : Narrative comments PURPOSE OF DATA : Provides the reviewers assessments and recommendations as to how well the plans and resources allocated to the S&I effort have been executed. SOURCE OF DATA : This is output data from the E12.4A2 process
STDN/INTEROP/ASSMNTS	STANDARD- IZATION AND INTEROPERA- BILITY ASSESSMENTS	STANDARDIZATION AND INTEROPERABILITY ASSESSMENTS FIELD INFORMATION, TYPE,STYLE : Narrative comments PURPOSE OF DATA: These data contain all the subassessments from the S&I assessment process. SOURCE OF INFORMATION : The S&I file where all comments and assessments are stored.

DATE: 26-OCT-88
TIME: 15:25

APJ PROJECT 966
DFD E12 DATA FLOW DEFINITIONS

PAGE 5
EXCELERATOR 1.8

Name	Label	Description
T & E Data	TEST & EVALUATION DATA	TEST AND EVALUATION DATA FIELD INFORMATION; TYPE; STYLE : Narrative comments or extracts from T&E documents. PURPOSE OF DATA : This data is used to help assess maintenance task, concept, allocation validations. It can also be used to assess the status of open T&E actions including maintenance demonstrations or teardowns. SOURCE OF DATA : Test & evaluation, maintenance demonstration/teardown plans and results.

DATE: 26-OCT-88
TIME: 15:44

APJ PROJECT 966
DFD E12 DATA STORES DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
DES/F	DESIGN FILE	<p>DESIGN FILE</p> <p>PURPOSE OF DATA STORE : This store contains design information which will aid in assessing S&I interfaces to include RSI.</p> <p>SOURCE OF DATA : Contract deliverables, design review minutes, drawings, specs, working group observations/comments.</p>
FUND/F	FUNDS FILE	<p>FUNDS FILE</p> <p>PURPOSE OF DATA STORE : This store contains funding resource information which is used to determine adequacy of funding for S&I efforts.</p> <p>SOURCE OF DATA : Funding related documents found in PM office.</p>
ILSP/F	ILSP FILE	<p>INTEGRATED LOGISTICS SUPPORT PLAN</p> <p>PURPOSE OF DATA STORE : This file is the plan where the overall logistics effort plan for a project is documented and reviewed by members of the ILSMT. Any changes or significant observation affecting the plan should be noted in there and also reviewed by ILSMT and program manager personnel as appropriate.</p>
LSAR	LSAR FILE	<p>LOGISTICS SUPPORT ANALYSIS RECORD FILE</p> <p>PURPOSE OF DATA STORE: This file or records holding area contains LSA Task reports or their equivalent; LSAR master record sheet information; LSAR reports when system is automated. It contains logistics data which can be used to assess various ILS elements. MIL-STD 1388-1A and 1388-2A should be looked at for complete outputs available.</p>
NONFND/F	NONFUND RESOURC, NON FUND RESOURCES FILES FILE	<p>PURPOSE OF DATA STORE : Identifies non monetary resources which are available (ie. personnel, standardization working committees, facilities, equipment, etc.)</p> <p>SOURCE OF INFORMATION: PM can provide information or assist functional managers on the project to identify these.</p>
REQ/F	REQMNTS DOCUMENT FILE	<p>REQUIREMENTS (DOCUMENTS) FILE</p> <p>ACRONYMS : JSOR - Joint Services Operational Requirements O&O - Operational and Organizational ROC - Required Operational Capabilities</p> <p>PURPOSE OF DATA STORE : This data store contains information on the stated RSI requirements which the system must or should meet.</p> <p>SOURCE OF DATA : Requirements documents (JSOR's, ROC's, multinational development agreements), O&O plans, Mission Profile documents, and systems or equipment specifications.</p>
REV/F	REVIEW FILE	<p>REVIEW FILE</p> <p>PURPOSE OF DATA STORE : This file contains information from program, design, and LSA reviews. It is used to provide information which will help to evaluate plans and resources execution efforts. It also contains information on contractual requirements</p> <p>SOURCE OF DATA : Documents/ minutes from program, design and LSA related reviews. Acquisition documents, RFP's, contracts , contractor progress reports etc.</p>

DATE: 26-OCT-88
TIME: 15:44

AFJ PROJECT 966
DFD E12 DATA STORES DEFINITION

PAGE 2
EXCELERATOR 1.8

Name	Label	Description
RSI/POL/F	RSI POLICY & AGREEMENTS FILE	RATIONALIZATION, STANDARDIZATION, INTEROPERABILITY (RSI) POLICY FILE AND AGREEMENTS FILE PURPOSE OF DATA STORE : This data store contains information on policies, directives, established agreements such as STANAG's, QSTAG's, etc. to be utilized in the implementation of RSI. SOURCE OF DATA : AR's 32-1, 32-2, 32-3, 32-4; NATO AAP 4, DA PAM 310-35, AR 700-66
S&I/F	S&I ASSESSMENT FILE	STANDARDIZATION AND INTEROPERABILITY FILE PURPOSE FOR DATA STORE : This data store is used to store comments or assessments throughout the S&I review process for a later rollup of all comments. SOURCE OF DATA : The output information generated from the various S&I processes.
STDN/F	STANDARDIZATION FILE	STANDARDIZATION FILE PURPOSE OF DATA STORE : Contains information on policies involving standardization issues as described in AR's 700-47, 700-50, 700-60; it also contains information on the Standardization Plan which is a program management document per AR 70-1 . SOURCE OF DATA : Policies from AR 700-47, 700-50, 700-60, MIL-STD's addressing uniform procedures (ie. drawings) and the standardization Plan
T & E	TEST & EVALUATION	TEST & EVALUATION PURPOSE OF DATA STORE : This information is used to provide the reviewer with access to test & evaluation data to include maintenance demonstrations in order to validate assignments of maintenance tasks. In TASK E12 similar information is provided but it is used to check for the validation of Standardization and Interoperability applications. SOURCE OF DATA : Any T&E document such as TEMP's, IEP's, Detailed Test Plans, Test Reports, Evaluation Reports, Scoring Conference Results, TIWG's

DATE: 26-OCT-88

TIME: 15:49

APJ PROJECT 966

DFD E12 EXTERNAL ENTITY DEFINITION

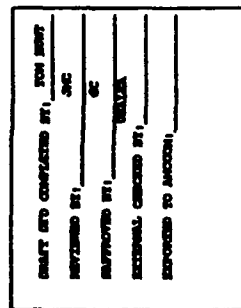
PAGE 1

EXCELERATOR 1.8

Name	Label	Description
ILSMT	ILSMT	THESE ARE THE ACTIVITIES WHICH WILL NORMALLY DIRECT THAT A MAINTENANCE
	AND	PLAN OR ANY OTHER ASPECT OF THE ILS PROGRAM BE REVIEWED. INFORMATION
	PM	GOES TO THEM FOR ACTION UNLESS THEY ARE CONDUCTING THE ASSESSMENT
		THEMSELVES.

E12.1A .

INTERFACES WITH OTHER ARMY, SERVICES
AND ALLY EQUIPMENT



A-13

DATE: 26-OCT-88
TIME: 15:20

APJ PROJECT 966
DFD E12.1A PROCESS DEFINITIONS

PAGE 1
EXCELEATOR 1.8

Name	Label	Description
E12.1A1	RVW LIST OF STATED INTERFACES WITH OTHER EQUIPMENT	<p>REVIEW LIST OF STATED INTERFACES WITH OTHER EQUIPMENT</p> <p>PURPOSE OF DATA PROCESS : This process starts the review process by identifying the explicitly stated interfaces given in the requirements documents (ie., " The XM ____ will be able to exchange ____ with the German Army's ____."</p> <p>SOURCE OF DATA : Requirement documents.</p>
E12.1A2	REVIEW FOR IMPLIED INTERFACES	<p>REVIEW FOR REVIEW FOR IMPLIED INTERFACES</p> <p>PURPOSE OF DATA PROCESS : This process checks for any implied RSI interfaces(end item or major assemblies) which may have been assumed or unknown at the time the requirements documents were written.</p> <p>SOURCE OF INFORMATION : Inputs from E12.1A1, E12.1A3 and the design file inputs.</p>
E12.1A3	REVIEW FOR ID OF RSI PRIORITY LST ITMS, STAND.AG'S	<p>REVIEW FOR REVIEW FOR THE IDENTIFICATION OF RSI PRIORITY LIST ITEMS AND STANDARD</p> <p>PURPOSE OF DATA PROCESS : This process takes the development item's stated interfaces with allies equipment and checks against the RSI issues given in AR's 34-1, 34-2, and any standard agreements that may exist for this type item. This will help determine what standardization actions are mandatory, desired or not mandatory.</p> <p>SOURCE OF DATA : Interfaces identified in requirements documents; policies set in Par. 2-1, AR 34-1; priorities list given in Par. 2-3, AR 34-2; STANAGs in NATO/CENTAG Allied Administrative Publications (AAP/CAAP-4); QSTAG's (see Quadripartite Standardization Agreement List); ASCC advisory publications; ABCA Navy Standards Agreements</p>
E12.1A5	REVIEW ARMY, SVC, RSI INTERFACES	<p>REVIEW ARMY, OTHER SERVICES, (ALLIED) RSI INTERFACES</p> <p>PURPOSE OF DATA PROCESS : This process is a check on potential applications affecting the development or which could affect other developments which show potential for joint cooperation. This is more of an approach wherein one is looking at other activities products to see if something could be "borrowed or loaned" to enhance interoperability but which may not have been stated, or implied --an opportunity.</p>

DATE: 26-OCT-88
TIME: 15:39

APJ PROJECT 966
DFD E12.1A DATA FLOW DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
DES/INT	DESIGN CAUSED INTERFACES	DESIGN CAUSED INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : This information is aggregated from the design file to show what interfaces with S&I implications need to be considered which where neither stated nor initially implied, but because of design accomodations must now be considered for its S&I impacts. SOURCE OF DATA : Design reviews or design working group notes.
INIT/ACT	INITIATE ACTION	
LST/STA/IMP/INT	LIST OF STATED & IMPLIED INTERFACES	LIST OF STATED AND IMPLIED INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : This data further aggregates information on implied interfaces not explicitly stated in the requirements documents. SOURCE OF DATA : E12.1A2 process.
LST/STA/IMP/POT/INT	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : Data is aggregated to show listing of all actual and potential interfaces having either RSI for E12.1 series processes or internal Army and DOD S&I interfaces. SOURCE OF DATA : All E12.1A series subprocesses or E12.2 series subprocesses
LST/STA/INT	LIST STATED INTERFACES	LIST OF STATED INTERFACES FIELD INFORMATION,TYPE, STYLE : Narrative comments. PURPOSE OF DATA : This data compiles S&I stated requirements information so the requirements documents do not need to be referenced again for this information. It also may contain the reviewers interim assessments associated with each stated interface. SOURCE OF DATA : E12.1A1 and E12.1A3 process wherein requirements are reviewed and identified.
S & I/POL/ DIRECTIVE S & I POLICY DIRECTIVES	S&I POLICY DIRECTIVES	S&I POLICY DIRECTIVES FIELD INFORMATION,TYPE, STYLE : Narrative comments PURPOSE OF DATA : This information contains the Standardization and Interoperability policy and directives information which must be complied with when evaluating S&I. SOURCE OF DATA: AR 34 series, AR 71-9, 700-47, 700-50, 700-60, 700-72, 700-101, 700-115, 703-1, 750-43, AMC-R 700-83, DODD 3405.1, DS FPM 310-35, MIL-STD 633, 680, 838, 965, and MIL HANDBOOK 113 apply to standardization concerns.

DATE: 26-OCT-88
TIME: 15:39

AFJ PROJECT 966
DFD E12.1A DATA FLOW DEFINITIONS

PAGE 2
EXCELERATOR 1.0

Name	Label	Description
STA/RSI/REQ	LIST STATED RSI INTERFACES	LIST STATED RSI REQUIREMENTS FIELD INFORMATION, TYPE, STYLE : Narrative comments/listing PURPOSE OF DATA : This is a segregated list of requirements showing only RSI or ally related type S&I requirements. It is used to further categorize the development as to where it fits in the RSI priority categories and to check for the applicability of any standing agreements. SOURCE OF DATA : Requirements document as further refined in process E12.1A1
STAT/REQ	STATED REQSITS	STATED REQUIREMENTS FIELD INFORMATION, TYPE STYLE : Narrative comments or extracts from requirements documents. PURPOSE OF DATA : This data identifies the explicitly stated Standardisation & Interoperability requirements the system must meet for either RSI or internal DOD use (at the end item or below levels). SOURCE OF DATA : Requirements documents .

DATE: 26-OCT-88
TIME: 15:45

APJ PROJECT 966
DFD E12.1A DATA STORES DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
DES/F	DESIGN FILE	<p>DESIGN FILE</p> <p>PURPOSE OF DATA STORE : This store contains design information which will aid in assessing S&I interfaces to include RSI.</p> <p>SOURCE OF DATA : Contract deliverables, design review minutes, drawings, specs, working group observations/comments.</p>
REQ/F	REQUIREMENTS DOCUMENT FILE	<p>REQUIREMENTS (DOCUMENTS) FILE</p> <p>ACRONYMS : JSOR - Joint Services Operational Requirements O&O - Operational and Organizational ROC - Required Operational Capabilities</p> <p>PURPOSE OF DATA STORE : This data store contains information on the stated RSI requirements which the system must or should meet.</p> <p>SOURCE OF DATA : Requirements documents (JSOR's, ROC's, multinational development agreements), O&O plans, Mission Profile documents, and systems or equipment specifications.</p>
RSI/POL/F	RSI POLICY & AGREEMENTS FILE	<p>RATIONALIZATION, STANDARDIZATION, INTEROPERABILITY (RSI) POLICY FILE AND AGREEMENTS FILE</p> <p>PURPOSE OF DATA STORE : This data store contains information on policies, directives, established agreements such as STANAG's, QSTAG's, etc. to be utilized in the implementation of RSI.</p> <p>SOURCE OF DATA : AR's 32-1, 32-2, 32-3, 32-4; NATO AAP 4, DA PAM 310-35, AR 700-66</p>
S&I/F	S&I ASSESSMENT FILE	<p>STANDARDIZATION AND INTEROPERABILITY FILE</p> <p>PURPOSE FOR DATA STORE : This data store is used to store comments or assessments throughout the S&I review process for a later rollup of all comments.</p> <p>SOURCE OF DATA : The output information generated from the various S&I processes.</p>

DATE: 26-OCT-88
TIME: 15:50

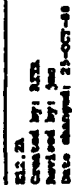
APJ PROJECT 966
DFD E12.1A EXTERNAL ENTITY DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
ILSMT	ILSMT AND PM	THESE ARE THE ACTIVITIES WHICH WILL NORMALLY DIRECT THAT A MAINTENANCE PLAN OR ANY OTHER ASPECT OF THE ILS PROGRAM BE REVIEWED. INFORMATION GOES TO THEM FOR ACTION UNLESS THEY ARE CONDUCTING THE ASSESSMENT THEMSELVES.

E12.2A

PARTS, PROCESSES & SUPPLY STANDARDIZATION



DATE: 26-OCT-88
TIME: 15:21

APJ PROJECT 966
DFD E12.2A PROCESS DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
E12.2A1	REVIEW COMPONENTS /PARTS	REVIEW COMPONENTS/PARTS STANDARDIZATION AND INTERCHANGEABILITY PURPOSE OF DATA PROCESS : This process is used to review whether STD'N & IN components/parts/assemblies have been checked or will be checked for TERCHNGBLT standardization or interchangeability. One is checking to see that new parts are kept to a minimum by utilizing items which exist already in the system. An assessment is made as to whether existing NSN, part numbered items, and MILSPEC items are being adequately used . SOURCE OF DATA : Results from proposed parts screens against the inventory. Extract design file information from drawings, specs, reviews or working group proceedings.
E12.2A2	REVIEW STD PROCESSES/ PROCEDURES UTILIZA- TION	REVIEW STANDARD PROCESSES/PROCEDURES UTILIZATION PURPOSE OF DATA PROCESS : This process reviews for the utilization of standard/uniform processes and procedures used in logistic support operations for operating/utilizing the equipment. SOURCE OF DATA : Design file inputs such as reviews, drawings, specs, proceedings from working groups.
E12.2A3	REVIEW DEGREE OF STDN POLICY APPLICATN	REVIEW DEGREE OF STANDARDIZATION POLICY APPLICATION ACRONYMS: AR - Army Regulation AMC-R - Army Materiel Command Regulation PURPOSE OF DATA PROCESS : This process checks the degree to which standardization policies of AR's 34-2, 34-3, 34-4, 700-47, 700-50, 700-60, 700-72, 700-101, 700-115, 703-1, and AMC-R 700-83 are being applied in the design process SOURCE OF DATA : Standardization file and inputs from E12.2A1, E12.2A2, AND E12.A3
E12.2A4	REVIEW ARMY/DOD RQMTS DOCU FOR INTERN AL INTERFS	REVIEW REQUIREMENTS DOCUMENTS FOR S&I INTERFACES PURPOSE OF DATA PROCESS : This process reviews the requirements documents for any stated, implied or potential standardization or interoperability requirements within DOD . the requirements document ,for example, may state or allude to particular interoperability of certain equipment, parts or components. SOURCE OF INFORMATION : The requirements documents

DATE: 26-OCT-88
TIME: 15:40

AFJ PROJECT 966
DFD E12.2A DATA FLOW DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
INIT/ACT	INITIATE ACTION	
LSA/REP	LSA REPORTS	LOGISTICS SUPPORT ANALYSIS (LSA) REPORTS OR RELATED DOCUMENTS FIELD INFORMATION,TYPE,STYLE : Narrative and numerical comments/extracts from LSAR numbered reports or LSA task performance reports PURPOSE OF DATA : This data is used as input information on which to perform various processes. SOURCE OF DATA : LSAR, LSA task reports not documented in LSAR. Specific report numbers under the LSAR must be selected by subject as required for the specific process. MIL-STD 1388-2A lists the various automated reports and the master data record sheets A-J available. Not all LSA task outputs are recorded on the LSAR; the LSA plan (TASK 201) for the particular system needs to be reviewed to see what tasks where to be done. Once LSA tasks are identified you may need to go to MIL-STD 1388-1A or contract for a review of what is required under the various tasks;this may provide an idea if results will also /not be found in hte LSAR.
LST/DES/INT	LIST DESIGN STANDARDIZTN INTERFACES	LIST DESIGN STANDARDIZATION INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : This data contains a listing of components,processes where design standardization efforts are taking/will/could take place based on engineering studies. SOURCE OF DATA : Information comes from design data derived from drawings, analyses, etc.
LST/PROC/SUP	LIST OF STD PROCESSES/ PROCEDURES UTILIZATION	LIST OF STANDARD PROCESSES/PROCEDURES UTILIZED FIELD INFORMATION,TYPE,STYLE : Narrative comments and lists. PURPOSE OF DATA : Data will be used to evaluate the usage of standard processes and procedures in the assembly and manufacture of the equipment. A comment on how the engineering community arrived at any unusual processes/procedures should be made. SOURCE OF DATA : Design file which includes drawings,specs,working group notes/minutes etc.

DATE: 26-OCT-88
TIME: 15:40

APJ PROJECT 966
DFD E12.2A DATA FLOW DEFINITIONS

PAGE 2
EXCELEATOR 1.6

Name	Label	Description
LST/PRT/PRO/WITH/ASS	LIST OF APPL ICABLE EQUIP PARTS/PROCES STANDRDIZTN WITH ASSMTS	LIST OF APPLICABLE EQUIPMENT, PARTS, PROCESSES/PROCEDURES STANDARDIZATION WITH ASSESSMENTS (FOR NON-RSI DIRECTLY RELATED ITEMS) FIELD INFORMATION,TYPE,STYLE : Narrative comments and lists with assessment comments. PURPOSE OF DATA : This output data reflects the evaluation of the reviewer as to what parts and processes are undergoing standardization efforts, as well as an assessment as to what greater extent it should be considered. RSI items may also form part of this list if the parts/processes are also common to allies; however, the intent is to check for standardization and interoperability within DOD systems. SOURCE OF DATA : The E12.2A3 process wherein lists are consolidated and assessed.
LST/STA/IMP/POT/INT	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : Data is aggregated to show listing of all actual and potential interfaces having either RSI for E12.1 series processes or internal Army and DOD S&I interfaces. SOURCE OF DATA : All E12.1A series subprocesses or E12.2 series subprocesses
LST/STD/COMP	LIST OF STD COMPONENT /PARTS	LIST OF STANDARD COMPONENTS/PARTS FIELD INFORMATION,TYPE,STYLE : Narrative comments and listings. PURPOSE OF DATA : Data is used to determine if an adequate effort has been made to standardize parts, components, assemblies. Part of the data identifies what method the engineering community used to identify or screen for common/existing components, instead of creating new items. SOURCE OF DATA: The design file which includes drawings, specs, working group notes/minutes,etc.
S&I/POL/DIRECTIVES/S S & I	POLICY DIRECTIVES & STDN PLAN DATA	STANDARDIZATION AND INTEROPERABILITY POLICY DIRECTIVES AND STANDARDIZATION PLAN DATA FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : Provides information concerning S&I policies and data from the System Standardization Plan if one exists already. SOURCE OF INFORMATION : The System Standardization Plan, policies from AR's 700-47,and 700-67

DATE: 26-OCT-88
TIME: 15:40

APJ PROJECT 966
DFD E12.2A DATA FLOW DEFINITIONS

PAGE 3
EXCELERATOR 1.8

Name	Label	Description
STAT/REQ	STATED REQMENTS	STATED REQUIREMENTS FIELD INFORMATION, TYPE STYLE : Narrative comments or extracts from requirements documents. PURPOSE OF DATA : This data identifies the explicitly stated Standardization & Interoperability requirements the system must meet for either RSI or internal DOD use (at the end item or below levels). SOURCE OF DATA : Requirements documents .

DATE: 26-OCT-88
TIME: 15:46

APJ PROJECT 966
DFD E12.2A DATA STORES DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
DES/F	DESIGN FILE	<p>DESIGN FILE</p> <p>PURPOSE OF DATA STORE : This store contains design information which will aid in assessing S&I interfaces to include RSI.</p> <p>SOURCE OF DATA : Contract deliverables, design review minutes, drawings, specs, working group observations/comments.</p>
LSAR	LSAR FILE	<p>LOGISTICS SUPPORT ANALYSIS RECORD FILE</p> <p>PURPOSE OF DATA STORE: This file or records holding area contains LSA Task reports or their equivalent; LSAR master record sheet information; LSAR reports when system is automated. It contains logistics data which can be used to assess various ILS elements. MIL-STD 1388-1A and 1388-2A should be looked at for complete outputs available.</p>
REQ/F	REQMENTS DOCUMENT FILE	<p>REQUIREMENTS (DOCUMENTS) FILE</p> <p>ACRONYMS : JSOR - Joint Services Operational Requirements O&O - Operational and Organizational ROC - Required Operational Capabilities</p> <p>PURPOSE OF DATA STORE : This data store contains information on the stated RSI requirements which the system must or should meet.</p> <p>SOURCE OF DATA : Requirements documents (JSOR's, ROC's, multinational development agreements), O&O plans, Mission Profile documents, and systems or equipment specifications.</p>
S&I/F	S&I ASSESSMENT FILE	<p>STANDARDIZATION AND INTEROPERABILITY FILE</p> <p>PURPOSE FOR DATA STORE : This data store is used to store comments or assessments throughout the S&I review process for a later rollup of all comments.</p> <p>SOURCE OF DATA : The output information generated from the various S&I processes.</p>
STDN/F	STANDARDIZATION FILE	<p>STANDARDIZATION FILE</p> <p>PURPOSE OF DATA STORE : Contains information on policies involving standardization issues as described in AR's 700-47, 700-50, 700-60; it also contains information on the Standardization Plan which is a program management document per AR 70-1 .</p> <p>SOURCE OF DATA : Policies from AR 700-47,700-50,700-60, MIL-STD's addressing uniform procedures (ie. drawings) and the standardisation Plan</p>

DATE: 26-OCT-88
TIME: 15:51

APJ PROJECT 966
DFD E12.2A EXTERNAL ENTITY DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
ILSMT	ILSMT AND PM	THESE ARE THE ACTIVITIES WHICH WILL NORMALLY DIRECT THAT A MAINTENANCE PLAN OR ANY OTHER ASPECT OF THE ILS PROGRAM BE REVIEWED. INFORMATION GOES TO THEM FOR ACTION UNLESS THEY ARE CONDUCTING THE ASSESSMENT THEMSELVES.

E12.3A

STANDARDIZATION & INTEROPERABILITY
IMPLEMENTATION PLANS &
RESOURCES AVAILABILITY

DATE: 26-OCT-88
TIME: 15:22

APJ PROJECT 966
DFD E12.3A PROCESS DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
E12.3A1	ASSESS PLN & RES' FOR ITEMS IMPLEMENTM OF RSI	ASSESS PLANNING AND RESOURCES FOR IMPLEMENTATION OF RSI INTERFACE LIST PURPOSE OF DATA PROCESS : This process compares the identified and potential RSI opportunities against the monetary and non-monetary resources available or programmed to implement RSI. This process will produce assessments as to the adequacy of the resources allocated to accomplish an acceptable or higher level of RSI. SOURCE OF INFORMATION : Resource availability files and lists of RSI interfaces from process E12.1 and E12.2
E12.3A2	ASSESS PLN AND RESOUR EFFORTS ON PROJECT WITHIN THE ARMY AND DOD FOR INFILE- MENTM STDN IN DOD	ASSESS PLANNING AND RESOURCES FOR IMPLEMENTATION OF STANDARDIZATION AND RESOUR EFFORTS ON PROJECT WITHIN THE ARMY AND DOD PURPOSE OF DATA PROCESS : To assess non-RSI standardization and interoperability interfaces for adequacy of financial and non-financial resources to accomplish the standardization effort. Specifically, standardisation efforts within other Army activities and other services is assessed. SOURCE OF DATA : Output process from E12.3A2.

DATE: 26-OCT-88
TIME: 15:41

APJ PROJECT 966
DFD E12.3A DATA FLOW DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Lab	Description
FUND/RSI/STDN	FUND AVAIL FOR RSI & STANDARDIZTN	FUNDS AVAILABLE FOR RSI AND STANDARDIZATION EFFORTS ACRONYMS: RSI - Rationalization, Standardization & Interoperability S&I - Standardization & Interoperability O&S - Operations and Support PM - Program Manager FIELD INFORMATION, TYPE, STYLE : Narrative and numerical comments PURPOSE OF DATA : This data will be used by the reviewer to help assess the adequacy of funding resources made available in the contract for the implementation of RSI and standardization efforts. It can also be used to identify if the various participants are carrying their "fair" share of the burden caused by the S&I effort, especially if it adds significant costs to the development or O&S costs. SOURCE OF DATA : Funding profiles available from the PM or his budget representatives.
LST/PRT/PRO/WITH/ASS	LIST OF APPL ICABLE EQUIP PARTS/PROCES STANDARDIZTN WITH ASSMTS	LIST OF APPLICABLE EQUIPMENT, PARTS, PROCESSES/PROCEDURES STANDARDIZATION WITH ASSESSMENTS (FOR NON-RSI DIRECTLY RELATED ITEMS) FIELD INFORMATION,TYPE,STYLE : Narrative comments and lists with assessment comments. PURPOSE OF DATA : This output data reflects the evaluation of the reviewer as to what parts and processes are undergoing standardization efforts, as well as an assessment as to what greater extent it should be considered. RSI items may also form part of this list if the parts/processes are also common to allies; however, the intent is to check for standardization and interoperability within DOD systems. SOURCE OF DATA : The E12.2A3 process wherein lists are consolidated and assessed.
LST/STA/IME/POT/INT	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES	LIST OF STATED, IMPLIED, POTENTIAL INTERFACES FIELD INFORMATION,TYPE,STYLE : Narrative comments. PURPOSE OF DATA : Data is aggregated to show listing of all actual and potential interfaces having either RSI for E12.1 series processes or internal Army and DOD S&I interfaces. SOURCE OF DATA : All E12.1A series subprocesses or E12.2 series subprocesses
NONFND/RSI/STDN/RES	NONFUND RESOURCES FOR RSI & STANDARDIZTN	NONFUND RSI AND STANDARDIZATION RESOURCES FIELD INFORMATION,TYPE, STYLE : Narrative and numerical comments or document extracts. PURPOSE OF DATA : This data is used to evaluate any non-monetary resources available to the project such as facilities, personnel equipment that will assist in executing the standardization effort. SOURCE OF DATA : MOU's, agreement documents with allies or other services identifying resource responsibilities to the project.

DATE: 26-OCT-88
TIME: 15:41

APJ PROJECT 966
DFD E12.3A DATA FLOW DEFINITIONS

PAGE 2
EXCELERATOR 1.8

Name	Label	Description
RSI/SUB/ASS	RSI PLANS & RESOURCES	RSI PLANS AND RESOURCES (ALLOCATION) SUBASSESSMENT SUB ASSESSMENT FIELD INFORMATION, TYPE, STYLE: Narrative comments. PURPOSE OF DATA : This output data provides the reviewer's assessment as to how adequate are the financial and non-financial resources to accomplish the RSI effort. SOURCE OF INFORMATION : Output information from E12.3A1
S&I/SUB/ASS	S&I PLANS & RESOURCES	STANDARDIZATION AND INTEROPERABILITY PLANS AND RESOURCES SUBASSESSMENT (FOR NON-RSI EXCLUSIVE ITEMS) FOR THE PROJECT SUB ASSESSMENT FIELD INFORMATION, TYPE, STYLE : Narrative comments PURPOSE OF DATA : This data contains the output information which identifies the adequacy of financial and non-financial resources to accomplish this aspect of the standardization effort. SOURCE OF DATA : This is output data from E12.3A2 .

DATE: 26-OCT-88
TIME: 15:47

APJ PROJECT 966
DFD E12.3A DATA STORES DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
FUND/F	FUNDS FILE	<p>FUNDS FILE</p> <p>PURPOSE OF DATA STORE : This store contains funding resource information which is used to determine adequacy of funding for S&I efforts.</p> <p>SOURCE OF DATA : Funding related documents found in PM office.</p>
NONFND/F	NONFUND RESOURC ES FILE	<p>NON FUND RESOURCES FILE</p> <p>PURPOSE OF DATA STORE : Identifies non monetary resources which are available (ie. personnel, standardization working committees, facilities, equipment, etc.)</p> <p>SOURCE OF INFORMATION: PM can provide information or assist functional managers on the project to identify these.</p>
S&I/F	S&I ASSESSMENT FILE	<p>STANDARDIZATION AND INTEROPERABILITY FILE</p> <p>PURPOSE FOR DATA STORE : This data store is used to store comments or assessments throughout the S&I review process for a later rollup of all comments.</p> <p>SOURCE OF DATA : The output information generated from the various S&I processes.</p>

E12.4A .

STANDARDIZATION & INTEROPERABILITY
PLANS AND RESOURCES EXECUTION

DATE: 26-OCT-88
TIME: 15:23

APJ PROJECT 966
DFD E12.4A PROCESS DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
E12.4A1	ASSESS EXECUTION OF RSI PLANS & RESOURCES	ASSESS EXECUTION OF RSI PLANS AND RESOURCES PURPOSE OF DATA PROCESS : This process takes prior accepted plans and resource allocations to accomplish RSI objectives and assesses how well they were carried out. This is essentially a check on how well actions were carried out. SOURCE OF DATA : Program and design execution documents and planning/resource information allocated for RSI effort.
E12.4A2	ASSESS EXECUTION OF STDN P&R FOR NONRSI ITM	ASSESS EXECUTION OF PLANS AND RESOURCES FOR NON-RSI RELATED STANDARDIZATION EFFORTS PURPOSE OF DATA PROCESS : This process takes the plans and resources allocated to perform the standardization effort and checks to see how well it has been executed. SOURCE OF DATA : Planning and resource inputs from E12.3A1 and execution data from various files such as the LSAR, T & E, and review files.

DATE: 26-OCT-88
TIME: 15:42

APJ PROJECT 966
DFD E12.4A DATA FLOW DEFINITIONS

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
LSA/REP	LSA REPORTS	LOGISTICS SUPPORT ANALYSIS (LSA) REPORTS OR RELATED DOCUMENTS FIELD INFORMATION,TYPE,STYLE : Narrative and numerical comments/extracts from LSAR numbered reports or LSA task performance reports PURPOSE OF DATA : This data is used as input information on which to perform various processes. SOURCE OF DATA : LSAR, LSA task reports not documented in LSAR. Specific report numbers under the LSAR must be selected by subject as required for the specific process. MIL-STD 1388-2A lists the various automated reports and the master data record sheets A-J available. Not all LSA task outputs are recorded on the LSAR; the LSA plan (TASK 201) for the particular system needs to be reviewed to see what tasks where to be done. Once LSA tasks are identified you may need to go to MIL-STD 1388-1A or contract for a review of what is required under the various tasks;this may provide an idea if results will also /not be found in hte LSAR.
REV/DTA	REVIEW DATA	REVIEW DATA FIELD INFORMATION, TYPE, STYLE : Narrative comments or extracts from review documents. PURPOSE OF DATA : Provides inputs so that RSI plan and resource execution can be evaluated . SOURCE OF DATA : Review documents found in the Review File .
RSI/EXEC	RSI P&R EXEC TN ASSESMNT /RECOMMENCTN	RSI PLANS AND RESOURCES EXECUTION ASSESSMENT AND RECOMMENDATIONS FIELD INFORMATION,TYPE,STYLE : Narrative comments PURPOSE OF DATA : This data records the reviewers assessment as to how well plans and resources in support of the RSI effort have been executed. SOURCE OF DATA : This is an output from process E12.4A1
RSI/SUB/ASS	RSI PLANS & RESOURCES SUB ASSESMNT	RSI PLANS AND RESOURCES (ALLOCATION) SUBASSESSMENT FIELD INFORMATION,TYPE, STYLE: Narrative comments. PURPOSE OF DATA : This output data provides the reviewer's assessment as to how adequate are the financial and non-financial resources to accomplish the RSI effort. SOURCE OF INFORMATION : Output information from E12.3A1
S&I/SUB/ASS	S&I PLANS & RESOURCES SUB ASSESMNT	STANDARDIZATION AND INTEROPERABILITY PLANS AND RESOURCES SUBASSESSMENT (FOR NON-RSI EXCLUSIVE ITEMS) FOR THE PROJECT FIELD INFORMATION,TYPE,STYLE : Narrative comments PURPOSE OF DATA : This data contains the output information which identifies the adequacy of financial and non-financial resources to accomplish this aspect of the standardization effort. SOURCE OF DATA : This is output data from E12.3A2 .

DATE: 26-OCT-88
TIME: 15:42

APJ PROJECT 966
DFD E12.4A DATA FLOW DEFINITIONS

PAGE 2
EXCELERATOR 1.8

Name	Label	Description
STDN/EXEC	STDN PLN&RES EXECUTION ASSESSMNT/ RECOMMENDATN	STANDARDIZATION PLANS & RESOURCES EXECUTION ASSESSMENT/RECOMMENDATIONS FIELD INFORMATION, TYPE, STYLE : Narrative comments PURPOSE OF DATA : Provides the reviewers assessments and recommendations as to how well the plans and resources allocated to the S&I effort have been executed. SOURCE OF DATA : This is output data from the E12.4A2 process
T & E Data	TEST & EVALUATION DATA	TEST AND EVALUATION DATA FIELD INFORMATION; TYPE; STYLE : Narrative comments or extracts from T&E documents. PURPOSE OF DATA : This data is used to help assess maintenance task, concept, allocation validations. It can also be used to assess the status of open T&E actions including maintenance demonstrations or teardowns. SOURCE OF DATA : Test & evaluation, maintenance demonstration/teardown plans and results.

DATE: 26-OCT-88
TIME: 15:48

AFJ PROJECT 966
DFD E12.4A DATA STORES DEFINITION

PAGE 1
EXCELERATOR 1.8

Name	Label	Description
LSAR	LSAR FILE	<p>LOGISTICS SUPPORT ANALYSIS RECORD FILE</p> <p>PURPOSE OF DATA STORE: This file or records holding area contains LSA Task reports or their equivalent; LSAR master record sheet information; LSAR reports when system is automated. It contains logistics data which can be used to assess various ILS elements. MIL-STD 1388-1A and 1388-2A should be looked at for complete outputs available.</p>
REV/F	REVIEW FILE	<p>REVIEW FILE</p> <p>PURPOSE OF DATA STORE : This file contains information from program, design, and LSA reviews. It is used to provide information which will help to evaluate plans and resources execution efforts. It also contains information on contractual requirements</p> <p>SOURCE OF DATA : Documents/ minutes from program, design and LSA related reviews. Acquisition documents, RFP's, contracts , contractor progress reports etc.</p>
S&I/F	S&I ASSESSMENT FILE	<p>STANDARDIZATION AND INTEROPERABILITY FILE</p> <p>PURPOSE FOR DATA STORE : This data store is used to store comments or assessments throughout the S&I review process for a later rollup of all comments.</p> <p>SOURCE OF DATA : The output information generated from the various S&I processes.</p>
T & E	TEST & EVALUATION	<p>TEST & EVALUATION</p> <p>PURPOSE OF DATA STORE : This information is used to provide the reviewer with access to test& evaluation data to include maintenance demonstrations in order to validate assignments of maintenance tasks. In TASK E12 similar information is provided but it is used to check for the validation of Standardization and Interoperability applications.</p> <p>SOURCE OF DATA : Any T&E document such as TEMP's, IEP's, Detailed Test Plans, Test Reports, Evaluation Reports, Scoring Conference Results, TIWG's</p>

GLOSSARIES

GLOSSARY - DATA FLOW DIAGRAM

<u>ABBREVIATION</u>	<u>DESCRIPTION</u>
DES/INT	Design caused Interfaces
FUND/RSI/STDN	Fund Avail for RSI & Standardization
INIT/ACT	Initiate Action
LSA/REP	LSA Reports
LST/DES/INT	List of STD Processes/ Procedures Utilization
LST/PRT/PRO/W/ASS	List of Applicable Equip Parts/Process Standardiztn with Assessments
LST/STA/IMP/INT	List of Stated & Implied Interfaces
LST/STA/IMP/INT	List of Stated, Implied, Potential Interfaces
LST/STA/INT	List Stated Interfaces
LST/STD/COMP	List of STD Component/Parts
NONFND/RSI/STDN/RES	Nonfund Resources for RSI & Standardization
REV/DTA	Review Data
RSI/EXEC	RSI P&R EXEC TN Assessment/ Recommendation
S&I/POL/DIRECTV	S&I Policy Directives
S&I/OVRAL/ASS	S&I Overall Assessments
S&I/OVRAL/ASS/W/ACT	S&I Assessment & Action Items
S&I/POL/DIRECTV/STDN	S&I Policy Directives & STDN Plan Data
S&I/SUB/ASS	S&I Plans & Resources Sub Assessment
STA/RSI/REQ	List Stated RSI Interfaces

GLOSSARY - DFD (cont'd)

STAT/REQ	Stated Requirements
STDN/EXEC	STDN Pln & RES Execution Assessment/Recommendation
STDN/INTEROP/ASSMNTS	Standardization and Interoper- ability Assessments
T & E DATA	Test & Evaluation Data

GLOSSARY - TEXT

<u>ABBREVIATION</u>	<u>DESCRIPTION</u>
ABCA	American, British, Canadian, Australier
AMSDL	Acquisition Manpower Systems and Data Requirements Control List
APJ	American Power Jet Company
AR	Army Regulation
ASCC	Air Standardization Coordinating Committee
CENTAG	Central Treaty Agreements
DA-PAM	Department of the Army Pamphlet
DFD	Data Flow Diagrams
DOD	Department of Defense
ILS	Integrated Logistics Support
ILSMT	Integrated Logistics Support Management Team
JSOR	Joint Services Operational Requirements
LSA	Logistic Support Analysis
LSAR	Logistic Support Analysis Record
MIL-SPEC	Military Specification
MIL-STD	Military Standard
MOU	Memorandum of Understanding
MSP	Maintenance Support Plan
NATO	North Atlantic Treaty Organization

O&O	Organizations and Operations
O&S	Operations and Support
PM	Program Manager
QSTAG	Quadripartite Standardiza- tion Agreement
RIP	Request for Proposal
ROC	Required Operational Cap- ability
RSI	Rationalization, Standardiza- tion and Interoperability
RVW	Review
STDAG	Standardization Agreement
STDI	Standardization Interoper- ability
T&E	Test and Evaluation
TEMP	Test Evaluation Management Plan
TIWG	Technology Integration Working Group